Division 12, 13, and 14 Review of Draft Framework Workshop for Environmental Management Plan

ATTENDEES:

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FROM: CH2M HILL

DATE: November 16, 1:00 PM

Division 12, 13, and 14 employees met on November 16th in the Division 13 conference room to review and discuss the draft Environmental Management Plan (EMP). The objectives of the meeting were to present the draft framework, obtain feedback from North Carolina Department of Transportation (DOT) Division and District staff, and identify the environmental activities already being performed. The draft EMP framework was reviewed with the entire group and then the attendees split into small groups to discuss each framework objective in detail. This memorandum summarizes the group discussions.

Introductions and Meeting Objectives

Ehren Meister opened the meeting, introduced the CH2M HILL team, and provided a general summary of the meeting's objectives. J.D. Solomon with CH2M HILL introduced the CH2M HILL staff members and asked the DOT participants to introduce themselves. J.D. presented the goals for the Environmental Management Plan, noted that the purpose of the meeting is to obtain feedback from staff, and described how Division input will be used to develop the final EMP.

Project Background

J.D. identified the EMP sponsors and the core team at DOT that helped to develop the EMP framework. The Framework is based upon existing DOT documents and additional information from benchmarked agencies that have excellent environmental management systems or programs. A few of the DOT documents were identified and a copy of the Environmental Stewardship Policy was provided to the meeting attendees. The

benchmarking agencies included other State Departments of Transportation, cities, and military facilities.

J.D. Solomon reviewed the main goals for the EMP:

- The EMP should be clear, concise, workable, realistic, and achievable for all levels of the organization.
- The EMP will provide a way to clearly document the cost effectiveness of investments made on environmental initiatives.
- The EMP will incorporate previous environmental initiatives where applicable.
- The EMP will include methods for communicating environmental performance measures to all levels so that employees recognize and understand what the Department is doing.
- Obtain broad acceptance of the EMP from the Board, employees, and the public.

The EMP framework was reviewed. The meeting participants were asked to think about the questions that they will be asked to answer in the small group sessions:

- What are you already doing that supports the EMP Framework?
- What are you doing that is missing from the EMP framework?
- What EMP objectives are not applicable to you?

After the objectives were presented, J.D. asked the group to identify anything missing and to share their initial thoughts about the framework. Were there any????

Break

Small Group Sessions

After the break the meeting attendees were split into three groups. Each group reviewed the individual framework pieces and identified the activities they are doing under each section and any activities that don't fit under the framework pieces. The small group discussions were led by CH2M HILL staff. Group comments were recorded on flip charts. After each framework piece was reviewed, the groups came back together and CH2M HILL presented the highlights of the small group discussions.

Objective A - Ensure employee compliance with the Environmental Stewardship Policy

1) Achieve zero notice of violations (NOV) on projects, facilities, and operations
2) Conduct root cause analysis and develop recovery plans for correction of NOV occurrences
3) Build upon and enhance internal programs which demonstrate NCDOT's commitment to the natural and human environment

Current Activities:

- Conduct annual environmental education for employees
- Environmental information is discussed the permit conditions
- Compliance form is filled out at the end of each project
- Projects are inspected routinely
- If an NOV is issued there is a debriefing, followed by development of plan on how to recover and change procedures to prevent future NOVs.
- No NOVs have been received in 20 years except for one recently
- No formal root cause analysis is performed
- Conduct an analysis of why NOV happened and require a 5 page report to be completed within 7 days of the NOV
- See fewer NOVs now than in the past, particularly because of compliance monitoring and immediate corrective actions (ICA)
- Utilize informal discussions about BMPs and what would have worked better if one didn't do well in a particular location
- Major TIP projects include monthly meetings with resource agencies
- Conduct outreach to children, but don't focus on environmental issues
- Prioritize and respond to public complaints (citizen complains are usually based on appearance)
- Administer the Adopt-A-Highway program
- Environmental activities managed by the roadside Department include: implementing BMPs for sedimentation and erosion control, appropriate disposal of hazardous materials, vegetation design and management (maintenance, selective removal, mowing and minimization of herbicide use), wildflower program, utilize recycled materials at rest areas, Monarch butterfly program, protection of threatened and endangered plants, obtain vegetation removal permits
- Division environmental officers (DEOs) obtain 401/404 permits and coordinate mitigation and restoration activities
- Division engineers are responsible for implementing BMPs for erosion control, complying with 401/404 permits, scenic byway planning and dealing with encroachments
- Resident engineers conduct mitigation and restoration activities, implement erosion control BMPs and comply with 401/404 permits
- Measure tons of litter that have been removed from roadways

Comments/Suggestions:

- Keep the inspectors objective and not "buddy-buddy" with the contractors
- Monthly division meetings could include environmental discussions
- Don't focus on the negatives "No NOV's", instead focus on the fact that no NOV's have been received
- Regulatory disagreements cost DOT money and time (native grass example F&W and DLR had different requirements)

- Inconsistent application of regulations within agencies is an issue
- Do use the BMP manual, but it is often geared for Eastern applications (dewatering example)
- The DOT website map doesn't mention environmental issues
- The DOT Highway Operations page mentions "Beautification", but doesn't identify environmental programs
- Division 13 and 14 could use more information on how to dewater ponds
- Should be able to find information on all environmental initiatives and applicable regulations on the DOT website

Objective B - Ensure the compliance of NCDOT and industry partners with state and federal environmental laws, rules and regulations

1) Achieve zero NOVs on projects
2) Achieve zero contract violations related to or as result of adverse environmental impacts
3) Conduct root cause analysis and develop recovery plans for correction of NOV or contract violation occurrences

Current Activities

- There is a process for excluding contractors based on the number of violations received
- Inspectors are assigned to each project
- Tailgate meetings at the site are used to discuss environmental issues
- The threat of a work stoppage is enough to produce improved contractor performance 8 out of 10 times
- Resident Engineer conducts weekly inspections, results provided to contractor
- DOT contracts out environmental training, training given to some employees once per year (too much for some employees)

Comments/Suggestions

- Current contracting mechanisms do not allow DOT to recognize the difference between good and bad contractors (low bid)
- Suggest prequalifying contractors and sub-contractors for some types of work, especially environmental work
- Formal tracking of contractor violations
- Regulatory interpretation is not always consistent
- Contractors should obtain Level II certification
- Include environmental experience and qualifications in the bid process for contractors and sub-contractors
- Communication is the key component

- Need better "two-way" communication between local DOT and resource agency representatives, suggest twice a month structured meetings
- Division management should develop training needs for specific jobs and set the training schedules
- DEO's or specialists could give training more frequently to additional employees
- Combine environmental training with safety or other training or review meetings
- Re-write B2 to say "zero contractor violations of environmental special provisions or permit conditions"
- There is resistance to change, cultural change is needed with all DOT staff to fully incorporate environmental considerations

Objective C – Build upon and enhance environmental sustainability practices

1) Achieve government recycling mandates to reduce waste and reduce costs
2) Determine the technical feasibility and cost effectiveness of waste reduction measures
3) Evaluate and track additional reduction, recycling, and reuse efforts to continually improve environmental sustainability
4) Implement the Energy Policy

Current Activities

- Use recycled tires in construction
- Track recycling efforts and report quarterly
- Recycle paper, plastic, and metal
- Use waste products such as shot rock or blast rock on wash-out areas (this saved $ because the contractor didn't have to haul or buy materials)
- Concrete recycling, use asphalt in other projects
- Utilize water-based asphalt for patching
- Replaced asbestos floor tiles
- Stockpile and reuse top-soil
- Use mulch from tree chipping
- Rehabilitating existing roads is really a massive recycling project
- The following activities are not being measured: asphalt reuse as riprap, stone and mulch use, and selling used metal projects
- Measure recycling results at rest areas
- Recycle/Reuse posts and opposite blocks as required by standard drawings

Comments/Suggestions

- Incorporate green building approach when possible
- Still producing too much paper
- Ask Ed Ingle what roadside environmental does (Note: Ed provided a handout)

- Currently the Divisions focus primarily on cost
- Mistakes are so costly and big that experimentation with recycled materials in projects is suppressed
- Have had failures with using rubberized asphalt (in <1 year)
- Have not tried re-cycled asphalt much

Objective D – Enhance air quality management

1) Identify and measure air quality impacts produced by NCDOT activities
2) Complete air quality analyses in non-attainment and maintenance areas on time
3) Maximize the use of available congestion mitigation and air quality improvement program (CMAQ) funds each year
4) Organize effective regional collaborations with metropolitan and rural planning organizations (MPO's and RPO's)

Current Activities

- Evaluating changing the fleet to biodiesel
- TIP projects look at air impacts during the EA/EIS process
- Not currently in a non-attainment area
- Meet with MPOs and RPOs on a regular basis and it is a good collaborative/team environment
- Can influence the MPO/RPO agenda and add environmental issues as appropriate
- RPO/MPO control CMAQ with little Division or board member input
- Use water trucks on roads to reduce dust
- Grind and chip trees instead of burning them
- Paving secondary roads removes sediment loading to streams
- Road cleaning keeps dust out of air and sediments out of waterbodies
- Ditching and shoulders filter out oils and sediment
- Grass ditch lines filter out pollutants better than gravel lines
- Turn vehicles off (to save fuel, due to high fuel cost), has air quality benefits (sometimes this is a safety issue, if lights go off when vehicle is turned off)
- Use new equipment
- All Division 12 vehicles run on bio-diesel, but have filter clogging problems on vehicles that are not run everyday

Comments/Suggestions

- Division staff are not aware of how DOT is measuring Air impacts, just informal observations
- This will be tough to measure and monitor
- Sidewalks funded by CMAQ funds don't meet air quality goals

- There would be more air quality improvements at the Division level if money was provided for intersection improvements and signal timing
- The MPO/RPO priorities are not necessarily aligned with the DOT's
- Congestion management and signal timing is a good thing, but would require 12 new employees to implement this in the Divisions
- The key to signal timing is maintenance, must keep them coordinated, DOT lacks the expertise and manpower
- Rental equipment is often old and produces high emissions
- Older contractor equipment may produce higher emissions

Objective E - Enhance water quality management

1) Continue to implement enhancements and BMPs related to water quality at facilities and properties

2) Track enhancement and BMP implementation efforts at the project level

3) Identify and track opportunities to enhance water quality through partnerships

4) Cooperate with watershed based approaches where possible

Current Activities

- Implement stormwater controls at maintenance facilities
- All facilities have a stormwater plan, although many are "band aids"
- Conduct visual inspections of maintenance facilities, retention ponds, and oil/water separators
- Are retrofitting some stormwater BMPs
- BMP retrofits (3) on I-40
- Water quality BMPs are evaluated during project inspections
- Statewide NPDES permit requires tracking of BMPS
- Meet with local watershed groups (quarterly)
- Install stormwater controls/BMPs on gravel roads in sensitive watersheds
- Work with local resource groups such as the river keepers
- Sit on the board of the River Keeper Association and help them implement their public outreach efforts
- Pave gravel roads in sensitive watersheds
- Each county maintenance engineer is a team lead for reviewing the Pollution prevention plans and conducts inspections
- County maintenance engineers inspect all facility stormwater drainage areas, look for leaks or spills, and review salt containment areas
- Report illegal discharges to DENR (any kind)
- Voluntary monitoring program on 485 in Charlotte
- Making progress on not draining bridge water to creeks
- Implement voluntary water use restrictions during drought conditions
- Inspect BMP's twice a year and utilize a web-based application for reporting

- Have a written maintenance plan for all sites, storage yards, and buildings
- BMP maintenance and inspections are recorded in staff work diaries

Comments/Suggestions

- Additional information on BMP retrofits is needed for all staff
- Do not have a formal inventory of existing BMPS
- Permit language does not address BMP maintenance
- Add more monitoring points at construction sites so employees can see the effects and outcomes of actions and BMPs
- The permitting process addresses site-specific issues only and limits the "watershed" approach
- Need money to replace insufficient or aging infrastructure in order to improve water quality at facilities (vehicle maintenance is not conducted under a roof, because vehicle doesn't fit in existing building)
- No CIP funds for facilities
- The watershed approach is emphasized by regulatory agencies but DOT can't influence the process

Objective F – Enhance land resource management

1) Integrate local land use plans into the comprehensive transportation planning process to meet mobility, economic and environmental goals
2) Continue to manage facilities and property to enhance environmental stewardship and economical land management practices
3) Continue delegation of the erosion and sedimentation control and buffer programs

Current Activities

- Roadside beautification and stabilization of soils
- Plant natural grasses and vegetation where possible (native?)
- Division conducts "corridor" planning with county and municipal planners as well as with MPO and RPOs
- Continue to collaborate with MPO/RPO's primarily regarding land use planning
- White Iris, grows in right of way, because DOT produces the habitat, but DOT has to purchase land to preserve the species
- Lots of roadside related projects, butterfly plants (Ask Don Lee to identify roadside programs)
- Manage right of ways to include more trees (can create conflicts)
- Created quail habitat in median of I-77 (classic example of a dumb resource agency decision quail and butterflies don't mix with grills and windshields)
- Installing floodplain benches

- Installed bear crossings (being used by raccoons and possums, but no bear sightings (video camera)) Division staff felt this was a waste of resources

Comments/Suggestions

- Landuse planning is not used a great deal in Western NC
- Need better communication with local governments on land use
- Need to inventory existing DOT properties and assets
- Request that subdivision plans be stamped by PE, currently roads are often below standards
- Developers don't follow rules and build substandard roads
- Traditionally DOT is not good at vegetation management in right of ways, typically the approach is to let it grow and then cut it down
- DOT has not been a good neighbors at many facilities
- Would like to manage the 404 permit process
- See better communication with DWQ now that DOT is responsible for erosion and sedimentation control

Objective G - Accelerate/streamline the environmental component of the project delivery process

1) Zero project delays due to permitting
2) Identify impacts, fund, and monitor the expense allocation to the EEP and other mitigation efforts
3) Identify appropriate mitigation funding sources and allocation of funds in TIP
4) Identify and track opportunities to partner with local governments and agencies to enhance the project delivery process
5) Explore delegation of environmental programs

Current Activities

- Conduct up-front meetings and negotiations with regulators
- Build relationships with resource agencies
- Not seeing a reduction in time required for project implementation, but this is tough to evaluate

Comments/Suggestions

- Zero delays due to permitting is not realistic
- Regulators are inconsistent and ask for more than is required
- This is a moving target and where the shell game happens
- DOT only gets one vote in the merger process, the teams are unbalanced and not being objective

- The merger process is a good idea, but it is not working now, frustrating, no trust, posturing and ACOE is not leading the process
- There needs to be a schedule set for completing the permitting process
- Elevating problems in the merger process doesn't always help, sometimes future projects become more contentious as a result
- Emphasize the need for cooperation in the merger process and automatic elevation if the schedule is not met
- Do not use the merger process as a place for Agencies to argue with each other, DOT is stuck in the middle and still responsible for project implementation
- Resource agencies need to tell DOT what they want early in the project and not move the target around
- Politics drives many decisions
- Need better communication between PDEA and Divisions
- Emphasize better communication between locals (w/in DOT or communities?)
- Need more centralized control of environmental issues (too many voices now)
- Eliminate the yearly land quality inspection report and use local interaction instead
- Delegate more environmental programs to the local level
- "Constructability" needs to be considered during project planning
- Project planning and PDEA are just interested in getting the permit, but the project cannot always be built as permitted
- Not enough money is provided for keeping up with the environmental aspects of projects, for example Division staff often have to go back numerous times to redo erosion controls because of weather or to comply with permit requirements
- Need full disclosure of money sent to EEP and mitigation efforts to the Divisions and the Public (Document what DOT is getting for the money being spent)
- Would alternatives to mitigation provide greater benefit to the environment or the public?
- Include the human aspect in mitigation efforts
- The perception within DOT and with other transportation professionals is that the general fund transportation dollars are going to fund environmental programs and under funded environmental agencies

Objective H – Implement and maintain the initiatives, programs and process improvements

1) Implement the Environmental Management Plan
2) Develop a comprehensive shared GIS database
3) Continue to enhance training and awareness of the environmental ethics of the Department
4) Develop a risk management plan

Current Activities

- Context Senstive Solutions

- Utilize tailgate meetings to discuss environmental issues
- Lead by example

Comments/Suggestions

- Training needs to be provided to transportation employees
- More on-the-job training would make training more effective (currently not enough field or hands on training)
- Division and local DOT staff need GIS information now
- CPI Awards- Include an Environmental category (higher up, not at grass roots level)
- Discuss environmental issues at maintenance conferences
- Need more local training at technical schools
- The GIS database should be funded and led by DENR, with contributions from other agencies
- Divisions/Districts have no GIS computer equipment

Summary and Conclusions

The next big issues are predicted to be stormwater runoff from roadways and aging infrastructure (have had pipes under roadways collapse in 5 different locations, and now the roads are closed). The DOT website should include a link to an environmental section that pulls together environmental information and resources. There is resistance to change, but cultural change is needed within DOT and with all staff to fully incorporate environmental considerations into DOT's daily activities.

Next Steps

Further comments can be provided to Ehren Meister with DOT or to J.D. Solomon with CH2M HILL. Employees interested in keeping track of the EMP development process can go to the DOT internet site: http://www.ncdot.org/environment/development/management/. After the Division workshops are completed, the input from staff will be incorporated into the framework and EMP implementation strategies.